

A New Species of *Tracheloides* (Hymenoptera: Sphecidae).

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The following description of an apparently new species of *Tracheloides* from Colorado adds to the present known fauna of North America the first record of this genus, although Cockerell¹ described a fossil wasp, *Tracheloides mortuellus*, from the Tertiary shales at Florissant, Colorado, the description being based chiefly on characters of the wing-venation. While the writer has not seen any other species belonging in this genus, the species here considered agrees well with all the characters given for the group by Kohl² in his treatment of *Crabro* of the Palearctic region. In his table to species-groups (pages 18-21), the present species will run to the first part of couplet 4, or *Tracheloides*. Additional characters of the genus may be found in the same paper on page 322.

Tracheloides hicksi, new species.

♀.—About 9 mm. long; entirely black, except for markings of ivory white on tibiae; pubescence silvery white. It may be separated from any other species of Crabroninae of the Nearctic fauna known to the writer by the following combination of characters: Anterior trochanter long; mandibles bidentate; eyes with fine short pubescence, inner margins converging slightly below; maxillary palpi with six joints; labial palpi with three.

Head, when seen from above, with sides nearly parallel, without modifications; dull, microscopically tessellate, punctures shallow and widely separated. Eyes with fine short pubescence, converging slightly below, distance between inner margins at lower and upper extremities as 2.5 to 3.25. Front above dull and tessellate, with sparse fine pubescence, lower part shining, laterally densely, more coarsely, pubescent; small median spine a short distance above antennal sockets, sockets separated from inner margin of eye by at least twice the distance between them. Vertex slightly convex, declivitous above occipital carina; ocelli forming a low triangle; postocellar line twice the distance between lateral and anterior ocelli, in proportion to ocellocular

¹ Bul. Mus. Comp. Zool., Harvard College, vol. 50, 1906, pp. 45-46.

² Ann. des K.-k. naturhist. Hofmuseums, Bd. 29, 1915, pp. 11-453.

line as 2 to 2.5. Facial fovea shallow, slightly wider posteriorly, contiguous with inner margin of eye, beginning about opposite anterior margin of lateral ocellus and extending forward beyond anterior ocellus by a little more than its diameter. Occipital carina ordinary, becoming obsolete some distance from median line of venter of head. Clypeus laterally finely aciculate and punctate, medially shining between large shallow punctures separated by at least twice their diameter; median truncate produced portion of apical margin anteriorly with two V-shaped emarginations; on each side, about half-way between basal-lateral angle of projection and lateral extremity of clypeus, a rather narrow tooth. Postgenae broad, unmodified, sculpturing similar to that of vertex. Apex of mandible bidentate, superior tooth nearly twice as large as inferior; inner margin with two low teeth separated by a shallow emargination. Labial palpi with three joints, maxillary palpi with six. Third joint of antenna longer than fourth (as 2. to 1.5) or than any of those distad.

Thorax dull, microscopically tessellate and minutely carinate or striate, punctures shallow and widely separated; pubescence short and inconspicuous; anterior-lateral angles of pronotum rounded, pronotum not transversely carinate, but with a posterior transverse groove; anterior declivous portion with several low carinae just before the tubercle; mesoscutum and scutellum microscopically tessellate, median posterior portion of mesoscutum longitudinally striate; suture between mesoscutum and scutellum rather shallow and weakly foveolate; prepectal carina of mesopleuron sharply defined, lower half of mesopleuron and position cephalad of mesepisternal suture tessellate, upper posterior portion horizontally carinate; metatergum finely tessellate and punctate; metapleuron and lateral surface of propodeum horizontally carinate; dorsal surface of propodeum with fine radiating carinae, not bordered posteriorly by a furrow or carina.

Legs black, with stripes of ivory white extending the entire length of anterior and middle tibiae and a spot on outer base of hind tibia extending nearly half its length. Anterior trochanter long, its length in proportion to that of femur as 2.5 to 4; middle femur of uniform width, metatarsus finely serrate and spined on posterior margin; hind femur ordinary, tibia strongly narrowed basally, with rows of short spines, metatarsus slightly arcuate, inner margin with a row of dense short spines, outer with four longer spines.

Wings hyaline, faintly iridescent; nervures piceous; radial cell apically truncate, receiving intercubital vein about midway

on its lower margin; cubital cell receiving first recurrent vein about midway on its lower margin.

First abdominal tergite nearly five times as wide at extreme apex as at narrowest part of base; tergites one to three with apical margins constricted, third less strongly so; first and second tergites dull, with stronger aciculations, third and fourth shining between weaker aciculations, each with a submarginal row of stiff hairs, fifth and sixth duller, microscopically tessellate between large shallow punctures, on fifth and sides of sixth the punctures separated by three or four times their diameter, on the median base of sixth by almost twice their diameter; pygidial area strongly narrowed apically, with a median groove, sides of apical portion nearly parallel and not carinate. Sternites one to five shining, somewhat aciculate, each with a submarginal row of long hairs; sixth with punctures similar to those of sides of that tergite.

Type.—Female, from Boulder County, COLORADO, July 28, 1933, collected by Charles H. Hicks and bearing his number 3216. Some observations on the habits of this wasp will subsequently be published by Mr. Hicks. The type is in the collection of the U. S. National Museum; catalogue No. 50488.

Tracheloides hicksi Sandhouse Hunting Ants (Hymen.: Sphecidae).

By CHARLES H. HICKS, Burbank, California.

This new species of wasp was found late in July and early in August in Boulder Canyon, near Boulder, Colorado capturing ants of the genus *Liometopum* (Dolichoderinae). Some of the worker ants, which Dr. T. D. A. Cockerell has kindly determined for me, doubtless serve normally as food for the young of the wasp. Mr. C. H. Graves of Colorado Springs, Colorado, has taken photographs showing the peculiar nest structure of ants of the genus *Liometopum* and Professor William Morton Wheeler gives a review of these ants in a paper entitled "The North American Ants of the Genus *Liometopum*" in the Bulletin of the American Museum of Natural History, Vol. xxi, Art. xx., pp. 321-333, 1905. The following brief notes on the habits of the wasps and ants were taken at a rather limited